

## CHARACTERISTICS OF VEGETABLE OIL CONSUMERS IN POLAND IN A VIEW OF SUSTAINABLE CONSUMPTION PRINCIPLES

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**Abstract.** The paper presents problems of the sustainable consumption. The study focused on an example product, i.e. vegetable oils. One of the elements ensuring sustainable consumption is connected with the development of proper consumption patterns. It is a complex issue, since it requires multifaceted interdisciplinary studies. The starting point for their development is provided by the characteristics of profiles of vegetable oil consumers in Poland in a view of sustainable consumption principles. This study is based on the results of national survey. Recorded results may be useful also when preparing public awareness campaigns concerning sustainable consumption.

**Key words:** vegetable oils, sustainable consumption, consumption patterns, Poland

### INTRODUCTION

Sustainable consumption patterns are defined as the consumption of material goods and services to a degree sufficient to satisfy basic needs and attain a higher quality of life, while minimizing the consumption of natural resources, materials harmful for the natural environment formed at all stages of production and at the same time not infringing on the rights of future generations to a comparable level of consumption [Kramer 2011]. Sustainable consumption is an optimal, conscious and responsible use of available natural resources, goods and services at the level of individuals, households, local communities, business circles, local and national governments, as well as international structures [Ministerstwo Gospodarki 2011]. Thus the problem of sustainable consumption may be

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considered in relation to individual households, regions or countries, while its level is influenced by the behavior of individual market participants.

Moreover, Kielczewski [2007] stressed that sustainable consumption is to be a set of rational purchase decisions aiming not only at attaining the consumer equilibrium, but also realizing objectives of sustainable development. Thus, as it was reported by Kieźel [2004], consumer choices should be purposeful, conscious, well-thought, deliberate and planned, comprehensive and calculated. In this sense choices made by consumers are justified not only economically. Purchase decisions should be also influenced by factors connected with broadly understood ethnocentrism, quality of purchased products and relatively low harmfulness for the natural environment. The role of economic factors may obviously be connected with the effect of price on consumer decisions. In turn, loyalty towards local enterprises may be indicated, among other things, by the selection of purchase outlets as well as the importance of the type and origin of the raw material among factors determining the purchase of the product. A separate problem is connected with the assessment of the effect of ecological consciousness on purchase decisions made by consumers.

When defining sustainable consumption various studies also indicated the need to develop new consumption patterns. Borkiewicz [2008] define that rational behavior and rational consumption patterns may contribute to enhanced sustainable consumption. In turn, Łuczka-Bakuła [2007] emphasised the need for such a reorganization of current consumption patterns so as to ensure minimization of their pressure on the natural environment. The role of proper consumption patterns as a factor guaranteeing sustainable consumption was also mentioned by Borowska [2002], Mózner [2014] and Verain et al. [2014]. Michaliszyn [2012] citing Szczepański [1981], defines the consumption pattern as a comprehensive complex of phenomena connected with satisfying consumer needs, which reflect all consumption models. In turn, Kramer [1997] defined consumption patterns as the level of consumption structure, fixed in time and repeated on a massive scale under specific social and economic conditions, with a cohesive system of relationships and dependencies. Thus a consumption pattern describes a given reality, the existing state, while a consumption model defines the state desirable from the point of view of adopted standards [Michaliszyn 2012].

Food consumption is a special area of consumption, important from the point of view of both a single consumer and the entire economy [Schösler et al. 2012, Verain et al. 2012]. Research concerning consumption patterns refers to all or specific groups of consumed products [see e.g. Borowska 2002]. Due to the complexity of the problem of sustainable consumption the development of a pattern for vegetable oils requires comprehensive and multifaceted interdisciplinary studies. Thus the aim of this study was to provide characteristics of Polish vegetable oil consumers in view of principles of sustainable consumption. Its results may prove useful for the development of sustainable consumption patterns for vegetable oils in Poland, as well as public awareness campaigns promoting such consumption.

## **MATERIAL AND METHODS**

In order to provide a characteristic of vegetable oil consumers both secondary and primary data were used. The former, concerning the level of consumption of vegetable oils, come from the FAOSTAT data base. In turn, primary data comprise survey results

on “Customs connected with the consumption of vegetable fats”. That survey was conducted between 26 and 30 April 2012 and was concerned the period from May 2011 to April 2012. The objective of that survey was to collect information on the declared consumption and purchase of individual types of vegetable fats, i.e. margarines, mixes and vegetable oils, frequencies of their consumption and purchase, criteria considered at their purchase and opinions concerning vegetable fats. The survey was conducted on a population of Poles aged 15+, representative in terms of their sex, age, education, size of household and net income. This study comprised direct interviews at the residence of respondents within the framework of multi-subject syndicated cyclical survey conducted by GfK CAPIBUS<sup>1</sup>. These interviews were conducted with the householder. The population comprised 910 respondents, including 205 men and 705 women.

Since it was not possible on the basis of the survey to specify the type of vegetable oil contained in margarines and spread mixes, the study includes only the results concerning pure vegetable oils. The incorporated data refer to rapeseed, soy, sunflower and olive oils. What is more, due to the small number of responses soy oil was eliminated from this study.

One of the criteria<sup>2</sup> determining the specification of consumption as sustainable is the consumption of products made from domestic raw materials, processed by national enterprises and sold by them [Ministerstwo Gospodarki 2011]. For this reason it was assumed in this paper that among vegetable oils consumed in Poland the criterion for a sustainable product was met to the greatest degree by rapeseed oil. Its economic importance was described e.g. by Bielski [2012]. Thus the characteristics of consumers of all vegetable oils jointly as well as sunflower and olive oils were referred to those of rapeseed oil.

The starting point for the conducted studies concerning vegetable oils in Poland consisted in defining profiles of consumers of individual oils. For this purpose the respondents were divided in terms of the declared level of consumption for vegetable oils or olive oil. Thus, consumers of rapeseed oil were those who in this survey declared that they use this oil more than once a week. They constituted 56% all respondents. In turn, the same level of consumption of sunflower oil was declared by 37% respondents, while for olive oil it was 11%. It needs to be stressed here that the declaration of a single respondent concerning the consumption of one oil did not exclude a simultaneous choice of other types of vegetable fats.

For such defined profiles of consumers further analyses were conducted to determine the importance of principles of sustainable consumption in their choices. Next to such characteristics differentiating respondents as sex, age, stage in life, size of household,

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<sup>1</sup>OMNIBUS survey conducted by CAPI – Computer Assisted Personal Interview.

<sup>2</sup>Sustainable consumption is realised by the consumption of sustainable products. Today we lack a comprehensive definition of sustainable products, but their attributes as target requirements may be defined. The major characteristics include e.g. [Ministerstwo Gospodarki 2011]: these products are safe and meet international environmental and ethical standards at all stages of the life cycle; their production and use should have a positive effect both on consumers and the local community, e.g. contribute to the improvement of conditions on the local labour market thanks to the activation of individuals threatened with social exclusion; the production process and distribution of sustainable products should stimulate the service sector, using mainly the labour resources and thus contributing to a reduction of unemployment.

education, income, professional status as well as residence, also the ranking of factors determining purchase was applied. The latter was established as a result of the conjoint analysis. The principles of this analysis and the method of its performance were presented by Walesiak and Bąk [2000] and Szymańska and Dziedzic [2005].

## RESULTS

### Analysis of the level and structure of vegetable oil consumption in Poland

The starting point for the characteristics of vegetable oil consumers is provided by description of consumption structure for oils and vegetable fats in Poland in the years 2000–2011. Among households the average annual consumption of all vegetable fats in 2012 amounted to 11.2 kg per person and in comparison with the figure for 2000 decreased by 1 kg [Rynek rzepaku 2004 and 2013]. Among vegetable fats the consumption of margarine and other fats decreased considerably from 7.3 kg per person in 2000 to 5.5 in 2012. In the same period the consumption of vegetable oils increased from 5.2 to 5.9 l per person, respectively. In turn, the consumption of olive oil for many years remained on the very low, but stable level: from 0.1 to 0.2 l per person.

Rapeseed oil predominates in the structure of consumption, although its share changed in the period 2000–2011. In the years 2000–2006 the importance of rapeseed oil in the structure<sup>3</sup> of consumption decreased from 60 to 30%. In the next three years this index remained at 30–37%, to reach 46% in 2009 and to fall again in the next two years to 33%. In the analysed period the share of soy oil also decreased from over twenty percent to around a dozen percent. The diminishing importance of these two oils was compensated for by palm oil. Its share in the structure of consumption at the end of the analysed period was approximately 30%. In the consumption structure the role of sunflower oil increased as well, although to a lesser extent as that of palm oil. In the period of 2000–2011 it increased from 8 to 12%. In turn, the share of olive oil in the analysed period remained relatively low, ranging from 1 to 3%. Fluctuations in the structure of consumption of vegetable oils resulted mainly from the variable amounts of these oils used by the oil industry to produce margarine and spread mixes [Rolnictwo w 2012 roku].

It results from the analysis of the level and the structure of consumption of vegetable oils in Poland that rapeseed oil and palm oil have the greatest share in the consumption, the latter being used in Polish processing industry mainly to produce margarine [Rolnictwo w 2012 roku]. As it was mentioned in the Methods chapter, on the basis of the conducted survey we may not accurately specify the type of vegetable oil consumed in the form of margarine or spread mixes. Thus this study comprises only the results concerning individually packaged vegetable oils, i.e. rapeseed oil, sunflower oil and olive oil.

### Vegetable oil consumers in view of the sustainable consumption principles

The starting point for the characteristic of consumers of rapeseed oil, sunflower oil and olive oil was provided by the list of data concerning their sex, age, stage in life, size of household, education, level of income, professional status and residence. They were

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<sup>3</sup>Cited values were calculated on the basis of FAOSTAT 2014.

presented in Tables 1–7. Values presented in individual table and referring to the above mentioned characteristics denote deviations of consumer evaluation scores for individual oils from average results obtained for all respondents. In order to ensure comparability of scores they are presented as relative values. Thus a positive value of the score means that consumers of a given oil gave these declarations relatively more frequently than the average.

Prepared lists of results showed that the purchase structure of analysed oils in terms of respondents' sex was similar to the structure for all respondents. However, we need to mention here that slightly more men declared purchase of rapeseed oil, while sunflower oil was bought more frequently by women (Table 1).

Table 1. Results recorded in identified consumer groups in terms of respondents' sex (%)

Sex	Total	Rapeseed oil	Sunflower oil	Olive oil
Women	77	74	79	76
Men	23	26	21	24

Source: The authors' calculations based on GfK Polonia.

In turn, in terms of the age of consumers (Table 2) we need to observe that rapeseed oil is purchased by relatively more older people (60 years and older), which may result from the common availability of rapeseed oil and from its price<sup>4</sup>. Kowalczyk [2007] indicated in his study that this situation is also connected with a lesser trust of the elderly in new products and new distribution channels and a relatively more frequent use of local convenience stores as well as street markets. In turn, olive oil was purchased more often by middle-aged people (from 40 to 59 years old). In contrast, sunflower oil was relatively most often bought by young people.

Table 2. Results recorded in identified consumer groups in terms of respondents' age (%)

Terms of age	Total	Rapeseed oil	Sunflower oil	Olive oil
15–29	14	12	14	12
30–39	16	15	16	16
40–49	19	20	20	25
50–59	19	18	23	24
60 and above	32	35	27	23

Source: The authors' calculations based on GfK Polonia.

The findings for the importance of age of consumers in this aspect may be confirmed by the fact that rapeseed oil was relatively more willingly selected by older unemployed families, having no children, including e.g. retired respondents (Table 3). Such families used relatively less olive oil. The latter was purchased more frequently than the average by families with children.

<sup>4</sup>According to IERiGŻ the average price of 1 l rapeseed oil for the period of the study, i.e. May 2011 – April 2012 was PLN 6.87 while that of sunflower oil was PLN 7.65, i.e. 1 l rapeseed oil was on average by 78 grosz cheaper than 1 l sunflower oil. In turn, the mean price of 0.5 l olive oil was PLN 18.2 [Rynek rzepaku stan i perspektywy 2012, no 41].

Table 3. Results recorded in identified consumer groups in terms of respondents' stage in life (%)

Terms of age	Total	Rapeseed oil	Sunflower oil	Olive oil
Students, free, live with their parents	2	1	2	1
Workers, free, live with their parents	3	3	3	3
Younger, without children, self-holding	6	4	3	0
Family with children	40	41	44	49
Older family, working, without children	16	15	15	17
Older family, not working, without children	33	35	32	29

Source: The authors' calculations based on GfK Polonia.

In turn, results listed in Table 4 indicate that the higher the education level, the less frequently they used rapeseed oil. An opposite trend was recorded in the case of sunflower oil and olive oil; however, in the case of olive oil this trend was stronger than in the case of sunflower oil. Individuals whose monthly income per household ranged from PLN 2.5 thousand to 3.5 thousand relatively more frequently used sunflower oil, while the wealthiest respondents chose relatively more frequently olive oil (Table 5). Thus less affluent respondents purchased relatively more often rapeseed and sunflower oils than olive oil.

Table 4. Results recorded in identified consumer groups in terms of respondents' education (%)

Level of education	Total	Rapeseed oil	Sunflower oil	Olive oil
Primary	20	22	15	8
Vocational	30	32	26	12
Secondary	36	32	43	56
Higher	15	13	16	24

Source: The authors' calculations based on GfK Polonia.

Table 5. Results recorded in identified consumer groups in terms of respondents' income (%)

Professional status	Total	Rapeseed oil	Sunflower oil	Olive oil
Bellow 1,500 PLN	21	22	26	15
1,500.00–2,499.99 PLN	27	27	15	19
2,500.00–3,499.99 PLN	27	28	43	31
3,500.00 PLN and more	25	23	16	36

Source: The authors' calculations based on GfK Polonia.

In turn, based on Table 6 it may be stated that only farmers chose rapeseed oil more often than average. Sunflower oil relatively more frequently was bought by workers, while olive oil was used by office workers, directors, managers and enterprise owners. In turn, taking into consideration the size of town where respondents were living, measured by the number of inhabitants (Table 7), it may be stated that the smaller the town, the greater the loyalty to domestic products.

Table 6. Results recorded in identified consumer groups in terms of respondents' of professional status (%)

Professional status	Total	Rapeseed oil	Sunflower oil	Olive oil
Unemployed	9	9	9	13
Pensioners	31	31	30	28
Farmers	13	16	14	9
Blue-collar workers	16	12	19	12
White-collar workers	20	19	17	24
Directors, managers and enterprise owners	5	4	4	7
Others	6	9	7	7

Source: The authors' calculations based on GfK Polonia.

Table 7. Results recorded in identified consumer groups in terms of respondents' residence (%)

Type of residence	Total	Rapeseed oil	Sunflower oil	Olive oil
Village	39	44	38	33
Town to 50,000 inhabitants	24	24	24	16
Town to 500,000 inhabitants	27	24	30	45
City over 500,000 inhabitants	10	8	8	5

Source: The authors' calculations based on GfK Polonia.

It needs to be stressed that both income and education proved to be factors considerably differentiating the identified groups of consumers. Katona [1975] was of an opinion that conscious and deliberate behavior characterises rather consumers with at least a medium income level, better educated, younger and those, for whom shopping is a pleasure and not a chore [Rudnicki 2012]. However, studies showed that except for the age factor such a group relatively less often chose rapeseed oil than sunflower or olive oil. Thus this is the target group for public awareness campaigns presenting the problem of sustainable consumption.

### **Purchase decisions of vegetable oil consumers in view of principles of sustainable consumption**

One of the manifestations of sustainable consumption is the conscious selection of point of purchase. Shopping in large super- or hypermarkets may indicate that consumers on the one hand are motivated by the relatively lower prices of products, while on the other hand – by the availability of a broader range of products. In turn, shopping in smaller shops may indicate willingness to support local entrepreneurs or convenience.

Results of the listed points of purchase of vegetable oils and olive oil in terms of the division into individual groups of consumers are presented in Table 8. Among respondents, who declared use of vegetable oils or olive oil at least once a week, the most frequently declared point of purchase was a cheap supermarket or a discount store. Such an indication was recorded for 35% consumers of rapeseed oil, 36% of sunflower oil and 40% of olive oil. The latter product was purchased relatively more frequently in

Table 8. Vegetable oils and olive oil (relative values) depending on points of purchase in distinguished consumers' groups (%)

Point of purchase <sup>a</sup>	Rapeseed oil	Sunflower oil	Olive oil
Hypermarket	10	10	15
Supermarket	19	25	25
Cheap supermarket, discount store (e.g. Biedronka, Lidl)	35	36	40
Small self-service shop	16	16	13
Small grocery shop, no self-service section	16	9	4

<sup>a</sup>Due to low values the table does not contain response categories: Health food store / Organic food store, Street market/ fair, others, what, I don't know / hard to say.

Source: The authors' study based on GfK Polonia.

hypermarkets. In turn, rapeseed oil was purchased by respondents more often in small shops. Such a declaration was given by 1/3 consumers of this oil. In the case of sunflower and olive oils such a declaration was given by 25 and 17% respondents, respectively. Thus it may be stated that consumers of rapeseed oil, in comparison with consumers of the other oils, to a greater degree supported local shop owners.

The theory of sustainable consumption assumes that consumers are motivated by conscious choices, determined not only by economic factors, but also factors connected with health, degree of nuisance of a given product to the natural environment or ethnocentrism. In order to verify this assumption a verification was conducted on the ranking of factors determining purchase of vegetable oils and olive oil (Table 9), obtained based on the conjoint analysis.

Results indicate that in the case of vegetable oil consumption and olive oil a decisive role in their purchase was played by their price. However, we need to mention here that for consumers of rapeseed and sunflower oil the price factor played a great role, but it was comparable to that for the opinions of all respondents. In turn, for individuals preferring olive oil the price factor had a comparable strength as quality of the purchased product. What is more, consumers of olive oil in comparison with all the respondents attributed a relatively greater importance to health promoting health and quality of the product, as well as the type of raw material, from which oil was produced and their experience so far. A relatively lesser effect on the purchase decisions was observed for taste and advertising. We need to stress here that for consumers of rapeseed oil, in comparison with all the respondents, a relatively greater role at the time of purchase was played by such purchase factors as taste, enrichment with vitamins, nice aroma, experience so far, natural character of the product and colour of the product. In turn, a basic principle of sustainable consumption, i.e. the country of product origin and the type of raw material from which it was produced, played for them an even lesser role than the mean ranking results for all respondents.



Table 9. Ranking of factors determining the purchase of vegetable oil or olive oil (mean values) in distinguished consumers groups

Factors	Total	Rapeseed oil	Sunflower oil	Olive oil
Price	30.55	29.92	30.15	17.51
Taste	15.35	16.37	17.13	12.37
High quality	12.39	12.29	12.96	18.07
Natural product	8.08	8.12	7.76	10.90
Health promoting value	7.84	7.89	8.26	10.75
Enriched with vitamins	2.59	2.73	2.44	2.87
Nice aroma	2.04	2.15	1.95	2.04
Multiple use/versatile product	1.10	1.10	0.85	1.26
Colour of product	0.80	0.84	0.67	0.70
Promotion in shop	2.42	2.32	2.40	2.50
Known brand	1.29	1.23	1.13	1.36
Product advertised in mass media	0.58	0.56	0.46	0.46
Size of packaging	0.85	0.83	0.72	0.79
Practical packaging/easy to use	0.73	0.71	0.61	0.74
Attractive packaging	0.66	0.65	0.59	0.59
Type of raw material from which the product is made, e.g. rapeseed, sunflower	6.03	5.59	5.55	8.40
Experience so far	5.67	5.77	5.42	7.41
Country of product origin	1.01	0.92	0.94	1.24

Source: The authors' study based on GfK Polonia.

### Attitudes towards oils and fats

Characteristics of consumers of vegetable oils were supplemented with an analysis of knowledge of respondents on problems connected with the effect of consumption of vegetable and animal fats on human health. A similar analysis was conducted e.g. by Duchin [2005]. Respondents were to indicate whether they agree with a specific statement. Figure 1 presents the contents of the statements and the percentage of responses to specific questions, arranged in terms of the share of positive responses to a given question. Statements presented in Figure 9 may indicate knowledge on nutrition of the respondents. Thus, 82% all respondents were of an opinion that vegetable fats are healthier than animal fats, 81% respondents considered the statement that vegetable fats are recommended by doctors treating diabetics to be true, 80% agreed with the statement that vegetable fats contain less cholesterol than animal fats, 75% respondents admitted that vegetable fats are appropriate for children and the elderly, 71% respondents confirmed that vegetable fats may be used in all dishes, while 63% surveyed indicated that vegetable fats are proper for other dishes than animal fats. In view of the percentages of positive responses it may be stated that knowledge on nutrition in all the groups of vegetable oil consumers is relatively high. However, as indicated by the results, the highest share of positive responses was recorded for consumers of sunflower oil and olive oil. In turn, the number of positive responses of consumers of rapeseed oil was similar to the average.

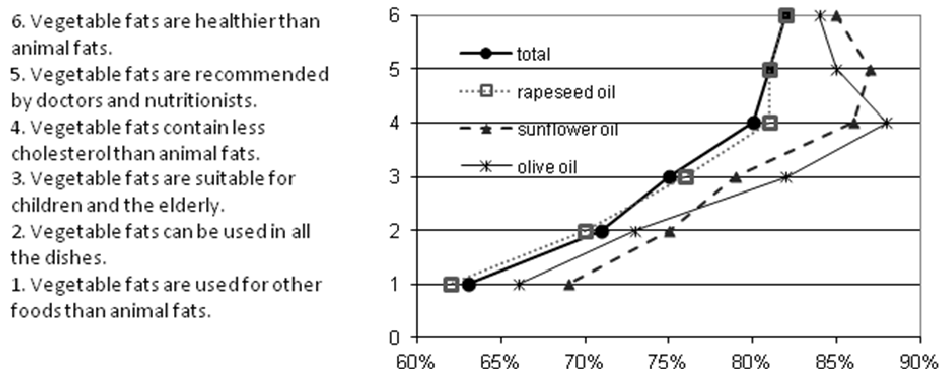


Fig. 1. Proportions of positive responses to questions concerning attitudes towards oils and fats in distinguished groups of consumers

Source: The authors' calculations based on GfK Polonia.

## CONCLUSIONS

The phenomenon of sustainable consumption may be analysed on the global level as well as the level of a single household. It needs to be stressed that consumption may not be perceived as a phenomenon, which threatens continuous development. However, it should ensure economic, environmental and social equilibrium. For this purpose we need to develop e.g. appropriate consumption patterns. An indispensable element of this process is also modification of public awareness in this respect.

The authors of this study focused on the analysis of a selected food product from the point of view of principles of sustainable consumption. This study comprises characteristics of Polish consumers of three vegetable oils, i.e. rapeseed, sunflower and olive oil. Based on the results of the analysis we may formulate the following conclusions concerning the profiles of consumers:

1. Relatively more often, in comparison with sunflower and olive oil, men are consumers of rapeseed oil. This oil was chosen rather by older families, individuals aged 60+. Consumption of rapeseed oil turned out to be closely related with education and standard of living. The lower the education declared by the respondent, the more often they chose this oil. It was purchased also relatively more often by individuals less affluent, living in the countryside. In terms of professional groups rapeseed oil was markedly more often preferred by farmers. What is more, consumers of rapeseed oil more often purchased this product in smaller shops. Thus it may be stated that thanks to such choices consumers to a greater degree support domestic producers and entrepreneurs operating in their immediate surroundings, which is consistent with the principles of sustainable consumption.
2. In turn, sunflower oil was slightly more often purchased by women. It was preferred rather by families with children, with more than 3 family members, rather than single householders. Sunflower oil was more often chosen by individuals with secondary and higher education. It was relatively less often chosen by individuals with the

lowest income, e.g. retirees and pensioners, to the advantage of workers. Results also showed lesser than average frequency for office workers and managers.

3. Consumers of olive oil proved to be, more often than in the case of rapeseed and sunflower oils, were individuals aged 40–59. It was significantly more often chosen by families with children. What is more, its consumption is closely related with the education and income levels declared by respondents. Olive oil was relatively less often used by individuals with lower education levels as well as retirees and pensioners. This oil was purchased more often by individuals with higher incomes. It was chosen by office workers, directors, managers and enterprise owners. Olive oil was purchased most often by inhabitants of towns with the population of 50 up to 500 thousand, and relatively less often by inhabitants of villages.

Assumptions of this study and conducted analysis made it possible to formulate the statement that among the analyzed oils rapeseed oil to the greatest degree meets the principles of sustainable consumption, which will be ensured when consumers behave rationally and make rational choices. Investigations showed that consumers of rapeseed oils are not motivated by the quality or origin of the raw material, which could be associated with their awareness of sustainable consumption, but rather by price factors. A decisive role in the choice of vegetable oils is thus played by the economic considerations. This situation is dangerous, since in the case of a radical change in the price of rapeseed oils we may not expect consumers to consciously support products of local entrepreneurs, motivated by principles of consumer ethnocentrism.

This study also showed that consumers with high education and income levels, living in cities purchased mainly sunflower oil and olive oil. Thus public awareness campaigns are required for these groups of consumers, emphasizing the importance of rapeseed oil as a product to the greatest degree fulfilling the principles of sustainable consumption.

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## CHARAKTERYSTYKA KONSUMENTÓW OLEJÓW ROŚLINNYCH W POLSCE W KONTEKŚCIE ZAŁOŻEŃ ZRÓWNOWAŻONEJ KONSUMPCJI

**Streszczenie.** W opracowaniu przedstawiono zagadnienie zrównoważonej konsumpcji. W pracy skupiono się na przykładowym produkcie, jakim są oleje roślinne. Jednym z elementów zapewniających zrównoważoną konsumpcję jest wypracowanie odpowiednich wzorców konsumpcji. Jest to zagadnienie złożone, gdyż wymaga przekrojowych badań interdyscyplinarnych. Punktem wyjścia do ich stworzenia może być przeprowadzona w artykule charakterystyka profilów konsumentów olejów roślinnych w Polsce w kontekście założeń zrównoważonej konsumpcji. W jej opracowaniu wykorzystano wyniki ogólnopolskich badań ankietowych. Uzyskane wyniki mogą być przydatne także przy przygotowywaniu kampanii społecznych dotyczących tego zagadnienia.

**Słowa kluczowe:** oleje roślinne, zrównoważona konsumpcja, wzorce konsumpcji, Polska

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